Electronic Supplementary Information (ESI)

Emulsion Technologies for Multicellular Tumour Spheroid Radiation Assays

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SUPPLEMENTARY FIGURE 1

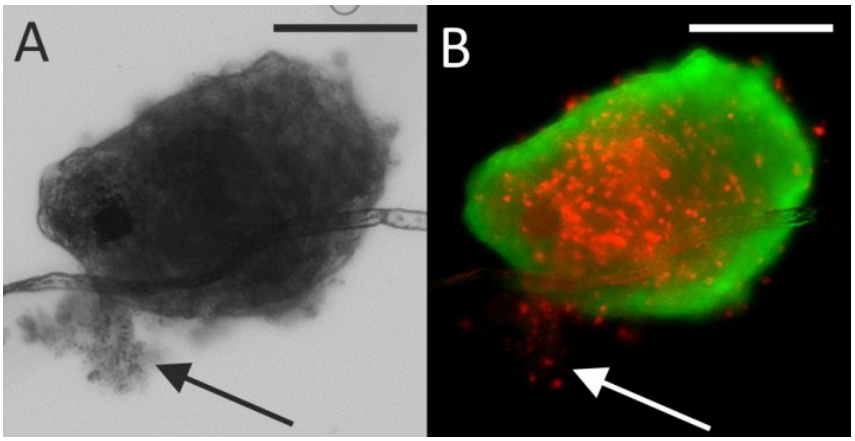

Figure S1. Assessment of cell detachment from spheroid using live/dead staining. (A) Brightfield image and (B) fluorescent image of a spheroid stained with fluorescein diacetate (green) (viable) and propidium iodide (red) (non-viable) within a M/O droplet. Media inside the droplet was not refreshed for 18 days. *The arrows indicate cells which have disaggregated from the spheroid, all of which are not viable. Scale bar = 150 μm.*

SUPPLEMENTARY FIGURE 2

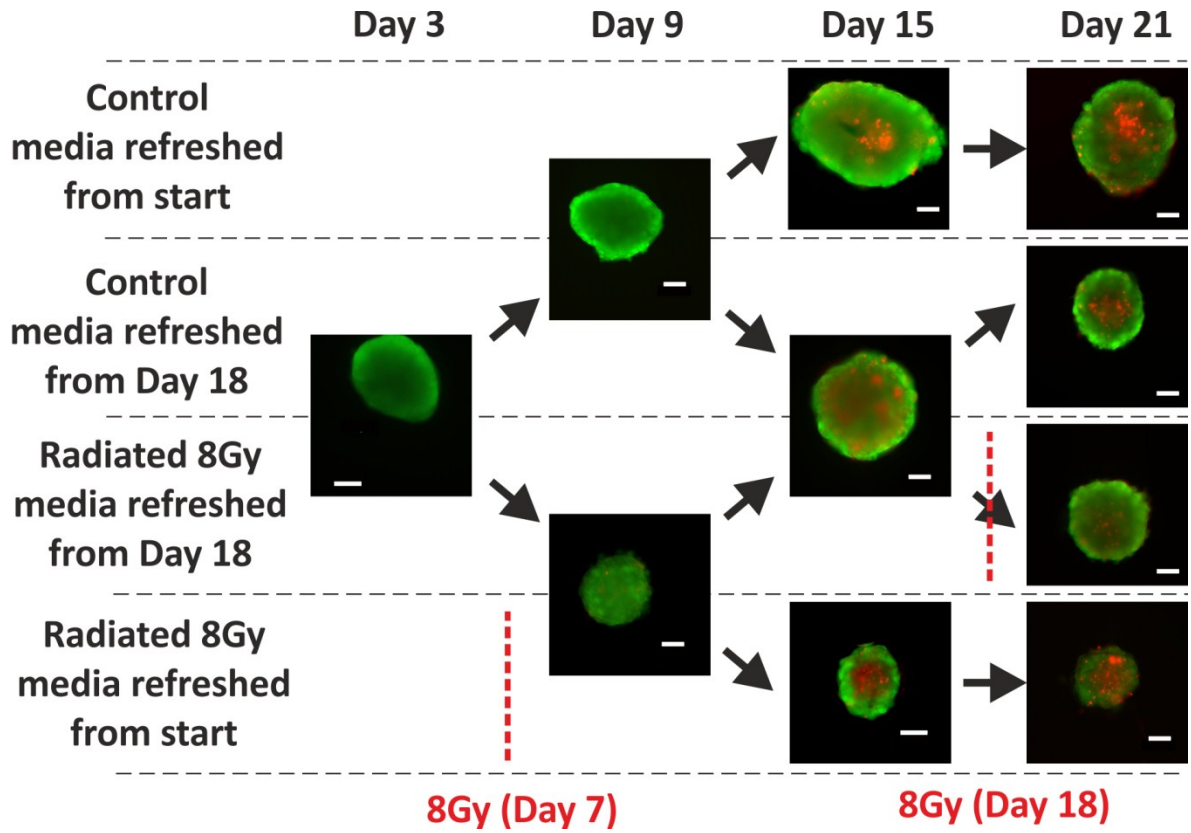

Figure S2. Representative images showing the influence of medium exchange and radiation treatment on spheroid viability. Fluorescent images of spheroids stained with fluorescein diacetate (green) (viable) and propidium iodide (red) (non-viable). The top and bottom rows show spheroids which had their medium refreshed every 2 days from the start of culture and the second and third row shows spheroids which had no medium refreshment until day 18. The bottom row shows a spheroid treated with 8Gy of radiation on day 7 while the third row shows a spheroid treated with 8Gy on day 18 (day 18 representing a time point at which the spheroid growth had plateaued due to no medium exchange). The spheroid for day 3 represents an early stage culture spheroid which has not yet developed a necrotic core and is representative for all the cases above.